Executive Education: Competitive Strategy, Telecommunications Policy and Strategy, Public Policy Strategy, Managing Business-Government Relations.

PUBLICATIONS

"The Emergence of Competition in Local Exchange Service," with Lori S. Lent, invited paper, International Engineering Consortium, *Annual Review of Communications*, 1995-96 edition.

"Competition and Public Policies in Telecommunications: A Survey of U.S. Developments," presented to Conference on Privatization and Deregulation in the US, UK and Japan, Economic Research Institute of the Economic Planning Agency of Japan, Tokyo, 1995; forthcoming in *Conference Proceedings*.

"ISDN in the United States: Strategies for Success: Part II - The Deployment and Adoption of ISDN," with Luis A. Enriquez, New Telecom Quarterly, 1995. Reprinted in Blue Sky: New Horizons in Telecommunications.

"ISDN in the United States: Strategies for Success: Part I - The Diffusion of ISDN," with Luis A. Enriquez, New Telecom Quarterly, 1994. Reprinted in Blue Sky: New Horizons in Telecommunications.

"Competition and Unbundling in Local Telecommunications: Implications for Antitrust Policy," with Gregory L. Rosston and David J. Teece, presented to Telecommunications Policy Research Conference, Solomons, Maryland, October 1994; forthcoming in *Conference Proceedings*, EAL Press.

"Principles of Imputation, Costing and Pricing of Interconnection and Essential Facilities," joint memorandum with Dr. Richard Emmerson, August 22, 1995.

"State Regulatory Policies and the Telecommunications/Information Infrastructure," presented to Workshop of the National Research Council, Washington D.C., October 1993; *The Changing Nature of Telecommunications/Information Infrastructure*, National Academy Press, 1995.

"Access and Competition Policy in the Deregulated Rail Freight Industry, with Comparisons to Competitive Access Issues in Telecommunications," with Curtis M. Grimm, presented to Columbia Institute for Telecommunications and Informatics, New York, November 1993; forthcoming in *Conference Proceedings*, Oxford University Press.

"R&D Expenditures by the Bell Operating Companies: A Comparative Assessment," invited paper, Twenty-Third Annual Conference, Michigan State University Institute of Public Utilities, Williamsburg, Virginia, December 9, 1991; MSU Public Utility Conference Proceedings, 1993.

"Strategic Uses of Regulation: The Case of Line-of-Business Restrictions in Communications," with Robert A. Blau, presented to Academy of Management, Miami, FL, August 14, 1991; Research in Corporate Social Performance and Policy, James E. Post (ed.), JAI Press, 1992.

"Structural Adjustment through Industry Deregulation: The U.S. Experience in Telecommunications and Transportation," invited paper, Pacific Economic Cooperation Conference on Structural Adjustment, Kyoto, Japan, October 11, 1990; PECC Conference Proceedings, 1991.



"Gaining Competitive Advantage through Strategic Public Policies: The Case of Japanese Telecommunications," invited lecture, National Economists Club, Washington, D.C., June 1988; *Economics and the Public Interest*, Richard T. Gill (ed.), Mayfield Publishing: Mountain View, CA, 1991.

"The Political Economy of Regulation: Analysis of Market Failures and Regulatory Responses," with James A. Carman, Scaling the Corporate Wall: Readings in Social Issues of the Nineties, S. Prakash Sethi, Paul Steidlmeier and Cecilia M. Falbe (eds.); Prentice-Hall: Englewood Cliffs, 1991.

"Telecommunications Services as a Strategic Industry: Implications for United States Policy," Competition and the Regulation of Utilities, Michael A. Crew (ed.), Kluwer Academic Publishers: Boston, 1990.

"Telecommunications as a Strategic Industry: Is There a Threat?" *Powernomics: Economics and Strategy After the Cold War*, Clyde V. Prestowitz, Jr., Ronald Morse and Alan Tonelson (eds.), University Press of America, 11. Reprinted from *Vital Speeches of the Day* LV(12), April 1989. Invited lecture, New York University Symposium on Telecommunications and Economic Development, December 1988.

"New Plans for Joint Ventures," with David C. Mowery, The American Enterprise, Sept/Oct 1990.

"Strategies for Innovation: An Overview," with David C. Mowery, California Management Review 32(3), Spring 1990, Co-Editor of Special Issue, "Strategies for Innovation."

"The Implications of Divestiture and Regulatory Policies for Research, Development and Innovation in the U.S. Telecommunications Industry," presented to Telecommunications Policy Research Conference, September 1988; *Telecommunications Policy*, April 1990.

"Telecommunications Policies in Japan: Lessons for the U.S.," presented to Advanced Workshop in Regulation and Public Utility Economics, Monterey, CA, July 1988; presented to Telecommunications Policy Research Conference, October 1988; California Management Review 31(3), Spring 1989.

"California Telecommunications Policy for the Twenty-First Century," Report to the California Economic Development Corporation, Sacramento, June 1988.

"A Qualitative Choice Analysis of Rail Routings: Implications for Vertical Foreclosure and Competition Policy," with Curtis A. Grimm, *The Logistics & Transportation Review*, March 1988.

"Horizontal Merger Policy: Promoting Competition and American Competitiveness," with Lawrence A. Sullivan, *Antitrust Bulletin*, January 1987.

"The Political Economy of Regulation," with James M. Carman, *Business & Society*, S.P. Sethi and C. Falbe (eds.), Lexington Books: Lexington, 1987.

"Public Regulation of Market Activity: Regulatory Failures," with James M. Carman, *Journal of Macromarketing*, Spring 1986.

"The Effects of Railroad Mergers on Industry Productivity and Performance," with Curtis M. Grimm, invited paper, Transportation Research Board, National Academy of Engineering, January 1986; *Transportation Research Record* 1029, 1986.



"Revitalization of the U.S. Freight Industry: An Organizational Perspective," with Curtis M. Grimm, *International Railway Economics*, K. Button & D. Pitfield (eds.); Crower: London, 1985.

"The Values of Economic Theory in Management Education," *The American Economic Association Papers & Proceedings* 74(2), May 1984.

"Public Regulation of Market Activity: Regulatory Responses," with James M. Carman, *Journal of Macromarketing*, Spring 1984.

"Antitrust Market Definition: An Integrated Approach," with Thomas M. Jorde, *California Law Review* 72(1), January 1984. Reprinted in *Corporate Counsel's Annual*, Matthew Bender, 1985. Reprinted in *Antitrsut Anthology*, A.I. Gavil (ed.), Anderson Publishing, 1995.

"Structural Economics of the U.S. Rail Freight Industry: Concepts, Evidence and Merger Policy Implications," with Curtis M. Grimm, *Transportation Research* 17A(4), July 1983.

"Vertical Foreclosure in the Rail Freight Industry: Economic Analysis and Public Policy Prescriptions," with Curtis M. Grimm, ICC Practioners' Journal, July 1983.

"Market Definition in the Merger Guidelines: Implications for Antitrust Enforcement," with Thomas M. Jorde, California Law Review 71(3), March 1983. Reprinted in Antitrust Policy in Transition: The Convergence in Law and Economics, Fox and Halverson (eds.), American Bar Association, 1984.

"Public Regulation of Market Activity: Institutional Typologies of Market Failures," with James M. Carman, *Journal of Macromarketing*, Spring 1983.

"Potential Benefits of Rail Mergers: An Econometric Analysis of Network Effects on Service Quality," with Clifford Winston, *Review of Economics and Statistics* 65(1), February 1983.

"Regulation: A Long Term Perspective," Business Environment/Public Policy: The Field and Its Future, Edwin M. Epstein and Lee E. Preston (eds.), St. Louis, 1982.

"The Financial Performance and Prospects of Railroads in the South and Southwest," with Curtis M. Grimm, *Texas Business Review*, November/December 1982.

"More on Passing On: A Reply to Cooter and to Viton and Winston," with Lawrence A. Sullivan, *Pennsylvania Law Review* 129(6), June 1981.

Rationalizing the Rail Freight System: Costs and Benefits of Branch Line Abandonments, U.S. Department of Transportation, Washington, D.C., 1981.

"Determinants of Railroad Profitability: An Econometric Study," with Theodore E. Keeler, *Economic Regulation: Essays in Honor of James R. Nelson*, William G. Shepherd and Kenneth D. Boyer (eds.), Michigan State University Press, 1981.

"Passing on the Monopoly Overcharge: A Response to Landes and Posner," with Lawrence A. Sullivan, *Pennsylvania Law Review* 128(5), May 1980.



"Suppliers of Last Resort: Economics of Self-Supply in Common Carrier Industries," with Robert A. Meyer, Quarterly Review of Economics and Business 19(4), Winter 1980.

"Economic Analysis of Light Density Rail Lines," The Logistics and Transportation Review 16(1), Winter 1980.

"Passing on the Monopoly Overcharge: A Comprehensive Policy Analysis," with Lawrence A. Sullivan, *Pennsylvania Law Review* 128(2), December 1979.

"Rationalizing the Physical Structure of the U.S. Rail Freight Industry," *National Railroad Policy*, Joint Economic Committee, U.S. Congress, Washington, D.C., Government Printing Office, 1979.

"Simple Analytics of Rail Costs and Disinvestment Criteria," Transportation Research Record 687, 1978.

"Economics of Traffic Density in the Rail Freight Industry," Bell Journal of Economics 8(2), Autumn 1977.

PAPERS, REPORTS, PRESENTATIONS & PROFESSIONAL PROCEEDINGS

"Telecommunications Trade and Investment Opportunities in China and India," presented to the Massachusetts Telecommunications Council, Boston, February 1995.

"The Strategic Implications of Interactive Broadband Telecommunications Networks for Competition and Public Policy," presented to the National Communications Forum, Chicago, September 1994.

"Competitive Implications of Vertical Relations between Equipment Vendors and Telecommunications Services: Lessons from the French Experience," with Joanne Oxley, presented to European Regional Conference of the International Telecommunications Society, Stenungsbaden, Sweden, June 21, 1993.

"Obtaining Competitive Intelligence and Creating Competitive Advantage through the Public Policy Process," with Steven Harris, invited paper, Annual Conference of the Society for Competitive Intelligence Professionals, Los Angeles, April 2, 1993.

"Deployment and Adoption of Integrated Services Digital Network in the U.S.: Progress and Public Policy Obstacles," with Luis Enriquez, invited paper, Twenty-Fourth Annual Conference, Michigan State University Institute of Public Utilities, Williamsburg, Virginia, December 8, 1992.

"Market Definition and Market Power in the Sports and Entertainment Industry," invited presentation, Antitrust Section, American Bar Association Annual Proceedings, San Francisco, August 1992.

"The Design of Incentive Regulation for Telecommunications," invited presentation, Conference on Alternative Regulation, Illinois Commerce Commission, Chicago, July 1992.

"The Effects of Public Policies on ISDN Deployment and Adoption in the U.S.," presented to International Telecommunications Society, Cannes, France, June 1992.

"Removing the MFJ Restriction on InterLATA Services," invited testimony, Subcommittee on Telecommunications & Finance, U.S. House of Representatives, Washington D.C., May 1992.



"The Implications of Telecommunications Infrastructure Investment for R&D, Innovation and Competitiveness," invited testimony, Subcommittee on Communications, U.S. Senate, Washington D.C., February 1992.

"Principles of Costing and Pricing for Telecommunications Regulatory Policy," invited testimony, Colorado Public Utilities Commission En Banc Hearing, Denver, February 1992.

"Deregulation and Interstate Bank Entry in California," with Lee Burke, Research Report of the California Policy Seminar, UC Berkeley, April 1991.

"Assessing the Future of Telecommunications in the Global Economy," invited address, California Telephone Association, Monterey, CA, February 1991.

"Economic Rationale for a National Fiber Optic Infrastructure," invited address, Congressional Staff Forum on Telecommunications (sponsored by Ameritech), Washington D.C., February 1991.

"Applications of Incentive Regulation: An International Comparison," invited presentation, Conference of California Public Utilities Counsel, Long Beach, CA, October 1990.

"The Role of Telecommunications in Regional Economic Development," invited address, Rocky Mountain State Leaders Conference, Billings, Montana, October 1990.

"Telecommunications and Public Policies in the Global Market," invited address, Carnegie Council, New York, NY, October 1990.

"Why We Need a National Telecommunications Policy: A Comparative Perspective," invited address, Policy Issues Management Conference, Bell Communications Research, Murray Hill, NJ, October 1990.

"Incentive Regulation for Telephone Utilities," invited presentation, Workshop of the Colorado Public Utilities Commission, Denver, September 1990.

"The Role of Telecommunications Policy," invited lecture, Conference on Economic Development in the Pacific Northwest, Portland, Oregon, September 1990.

"The Changing Economics of Telecommunications: Implications for U.S. Policy and Competitiveness," invited briefing of U.S. Congressional staff on telecommunications (sponsored by Pacific Telesis), San Francisco, August 1990.

"Communications Competitiveness and Infrastructure Modernization Act of 1990," invited testimony, Communications Subcommittee, U. S. Senate, Washington D.C., July 1990.

"Investing in America's Future," invited essay, 1989 Annual Report of Southwestern Bell Corporation, St. Louis, 1990.

"The Public Switched Telephone Network and Rural Economic Development," invited lecture, Montana State Leaders' Conference, Helena, April 1990.



"Is Public Policy Meeting the Needs of Consumers?" invited panelist, Conference on Telecommunications Technologies and Policies, Center for Communications and Information Science & Policy, University of Pennsylvania, March 1990.

"Telecommunications as a Strategic Industry," invited address, New England Council, Boston, February 1990.

"Fiber to the Customer: A Public Policy Perspective," invited paper, Western Communications Forum, San Diego, February 1990.

Session Chair and Moderator, "State Regulatory Reform: Recent and Future Trends," Fifth Conference on State Telecommunications Regulation, University of Utah, Salt Lake City, January 1990.

Invited Panelist, "Crossroads of Information Technology," Board on Telecommunications and Computer Applications, National Academy of Engineering, Washington D.C., October 1989.

Invited Panelist, "Industry Forum," Annual Meeting of the U.S. Telephone Association, San Francisco, October 1989.

"Strategic Lessons from Deregulated Industries," paper presented to Strategic Management Society, San Francisco, October 1989.

"Deregulation in the Transportation Industries: Lessons for Telecommunications Managers," invited paper, Center for Telecommunications Management, University of Southern California, October 1989.

"Price Cap Regulation and Economic Forecasting," invited presentation to 1989 National Forecasting Conference, Bell Communications Research, San Francisco, May 1989.

"The Strategic Implications of Telecommunications Deregulation in Europe," invited presentation, Strategic Management Society, Amsterdam, October 1988.

"Telecommunications Deregulation: Implications for the California Economy," invited presentation, California Foundation for the Environment and the Economy, Carmel, June 1988.

"A Comparison of U.S. and Japanese Policies toward Information Technologies," invited presentation, International Public Economics Association, Tokyo, May 1988.

"Information Technologies, Public Policy, and Regional Economic Development," invited address, Conference on Regional Development in Japan, Hokkaido University, Sapporo, Japan, May 1988.

"The Implications of Line-of-Business Regulation for Diversification Strategy & Enterprise Structure," presented to Strategic Management Society, Boston, October 1987.

"Alternative Regulatory Frameworks for Local Exchange Carriers," invited presentation, En Banc Hearing of the California Public Utility Commission, September 1987.

"Emerging Telecommunications Policies in Europe," Briefing of California Legislative Leaders, Los Angeles, September 1987.



"Japanese Corporate Philanthropy in the United States," presented to Academy of Management, New Orleans, August 1987; Center for Research in Management Working Paper BPP-23; published in summary form in *Strategic Directions*, with Barbara Lombardo and David Vogel, April 1989.

"The Effects of Deregulation on Competition and Competition Policy in Banking: A Review of the Literature," Working Paper No. 4, National Center for Financial Services, Berkeley, August 1987.

"Competitive Strategies under Regulatory Constraint: Implications of the AT&T Divestiture on Vertical Relations in Telecommunications," with David J. Teece, paper presented to Strategic Management Society, Singapore, 1986.

"The Economic Consequences of Deregulation," invited address, Emerging Issues Program, Conference of National State Legislative Leaders, Los Angeles, September 1986.

"Public Policies toward Utility Diversification: An Overview," invited presentation, California Policy Seminar/California Senate Office of Research, Berkeley, April 1986.

"New Technologies for Local Loop Access: An Economic and Regulatory Analysis," with Gary Pisano, Office of Technology Assessment, United States Congress, June 1985.

"Corporate Community Involvement in the Greater San Francisco Bay Area," with D. Vogel and J. Logsdon, Center for Research in Management, working paper, Berkeley, May 1985.

"The Future of Telecommunications Regulation," invited presentation, En Banc Hearing of the California Public Utilities Commission, San Francisco, November 1984.

"Testimony in Support of the Taxpayer Antitrust Enforcement Act," Judiciary Committee, U.S. Senate, May 1984.

ADMINISTRATIVE POSITIONS, UNIVERSITY OF CALIFORNIA

WALTER A. HAAS SCHOOL OF BUSINESS

Chair, Business and Public Policy Group (1983-84, 1986-93).

Policy and Planning Committee (1986-88; 1991-93); Chair (1987-88; 1992-93).

Chair, Program in Business and Social Policy (1986-90).

Business School Building Program Committee (1986-91).

Ph.D. Field Advisor, Business and Public Policy (1981-87; 1989-91).

Policy and Planning Committee (1991-3; Chair, 1992-93).

Member, Board of Directors, Washington Campus Program (1990-93).

Director, The Executive Program (1983-85).

Director, Executive Programs in Telecommunications (1989-92).

Chair, Executive Education Task Force (1991-93).

Member, Board of Directors, Berkeley Center for Executive Development.

UNIVERSITY OF CALIFORNIA, BERKELEY

Executive Committee, Center for Research in Management (1989-).

Advisory Board, Lester Center for Innovation and Entrepreneurship (1992-).

Chancellor's Advisory Committee on Parking (1988-89).



Robert G. Harris Page 9

Executive Committee, National Financial Services Center (1986-88). Executive Committee, Institute of Transportation Studies (1981-83). Director, Center for Transportation Policy Research (1980-82).

UNIVERSITY OF CALIFORNIA, SYSTEMWIDE

Working Group on Technology Transfer (1988-90). Task Force on Telecommunications and Information Policy Research (1984-85).

PROFESSIONAL AFFILIATIONS

American Economic Association
Academy of Management
Strategic Management Society
International Telecommunications Society
Association of Public Policy Analysis and Management

SERVICE TO PROFESSIONAL JOURNALS, SOCIETIES & PUBLIC AGENCIES

Governor's Ad Hoc Committee, Golden State Quality Awards (1991-92)

Chair, Ninth Annual International Conference of the Strategic Management Society, San Francisco (1989)

Associate Editor, California Management Review

Associate Editor, Logistics and Transportation Review

Editorial Advisory Board, Transportation Research

Session Organizer, Telecommunications Policy Research Conference (1988, 1989)

Session Organizer, Academy of Management (1991)

Reviewer/Referee: Bell/RAND Journal of Economics; Industrial and Corporate Change; Journal of

Asian Economics; Journal of Economics and Business; Journal of Public Policy Analysis &

Management; Journal of Regulatory Economics; National Science Foundation; Quarterly Review of

Economics and Business; Review of Economics and Statistics; Telecommunications Policy.

CONSULTING & TESTIMONY

Economic Consulting to Public Agencies:

California Department of Consumer Affairs (industry analysis; telecommunications policy); California Office of Attorney General (antitrust analysis in tire industry, merger analysis in food retailing industry, resale price maintenance in consumer electronics, infant formula pricing); California Public Utilities Commission (teach regulatory economics & policy to Commission staff); Interstate Commerce Commission (rate regulatory policy, merger policy, costing methodology); Office of Technology Assessment (telecommunications policy); U.S. Department of Transportation (railroad industry rationalization, merger policy); U.S. General Accounting Office (transportation policy).



Regulatory Expert Testimony:

Pacific Bell (product pricing, competitive strategy, regulatory policy, broadband deployment, MFJ interLATA relief); US WEST (regulatory policy, costing and pricing principles, local competition and interconnection); Ameritech (price regulation; local competition policy); General Telephone (pricing, regulatory policy); Western Coal Traffic League (railroad pricing); Consolidated Freightways (motor carrier pricing); Southern Pacific Transportation Co. (route rationalization analysis; rail merger analysis; pricing of trackage rights); American Presidents Intermodal Co. (competition policy, merger analysis); Bell Communications Research (R&D policy analysis); Bell Atlantic (price regulation, cable rate regulation; cellular telephone joint venture); Southwestern Bell (price regulation, local competition policy); BellSouth (price regulation, local competition policy); NYNEX (FCC spectrum auction rules); United States Telephone Association (FCC price regulation); MFJ Task Force (MFJ manufacturing relief); AGT and Stentor Companies (Canadian interconnection and local competition policy); Iusacell (Mexican interconnection and local competition policy).

Business Litigation Expert Witness Testimony:

Electrical contracting; biotechnology manufacturing equipment; corrugated steel pipe products; pipe fabrication; vision care services; electronic lighting ballasts; motion picture production, distribution and exhibition; regional shopping center development; semiconductor manufacturing equipment; digital-analog converters; workmen's compensation insurance; semiconductor manufacturing; resale of telecommunications equipment and services; after-market servicing of telecommunications equipment; on-line information and transaction services.

PRIOR/OTHER EMPLOYMENT

Deputy Director, Cost, Economic and Financial Analysis, Bureau of Accounts, Interstate Commerce Commission, Washington, D.C. (on leave, University of California) (1980-81).
 Director, ARTRAIN (traveling art education exhibit), Michigan Council for the Arts, Detroit (1971-72).
 President, Young America Corporation (direct marketing of specialty products), St. Louis (1969-71).
 Public Relations Consultant (TIME, Inc.; Rockefeller for President Committee; Young Citizens for Humphrey; Student Coalition for Congressional Action), New York and Washington D.C. (1967-69).
 Vice President, National Student Marketing Corporation, Washington D.C. (1966-67).
 Staff Assistant, Office of the Governor, State of Oregon, Salem (1966).
 Public Relations Field Representative, General Motors Corporation, Warren, Michigan (1965).

November 1996



CERTIFICATE OF SERVICE

I, David M. Sohn, do hereby certify that on this 28th day of August, 1997, I have caused a copy of the foregoing to be served via first-class United States Mail, postage pre-paid, upon the persons listed on the attached service list.

David M. Sohn

Attachment

^{*} Served via Hand-Delivery.

*Reed E. Hundt Federal Communications Commission Room 814 1919 M Street, NW Washington, DC 20554 *James H. Quello Federal Communications Commission Room 802 1919 M Street, NW Washington, DC 20554

*Susan P. Ness Federal Communications Commission Room 832 1919 M Street, NW Washington, DC 20554

*Rachelle B. Chong Federal Communications Commission Room 844 1919 M Street, NW Washington, DC 20554

*Regina M. Keeney Federal Communications Commission Room 500 1919 M Street, NW Washington, DC 20554 *A. Richard Metzger, Jr. Federal Communications Commission Room 500 1919 M Street, NW Washington, DC 20554

*James D. Schlichting Federal Communications Commission Room 518 1919 M Street, NW Washington, DC 20554

*Competitive Pricing Division Federal Communications Commission Room 518 1919 M Street, NW Washington, DC 20554

*International Transcription Services, Inc. Room 246 1919 M Street, NW Washington, DC 20554 Robert M. Lynch Durward D. Dupre Michael J. Zpevak Southwestern Bell Telephone Company Room 3520 One Bell Center St. Louis, MO 63101